

# UNIVERSITATEA TEHNICĂ DE CONSTRUCȚII BUCUREȘTI

## DOMENIUL: INGINERIE GEODEZICĂ

### LISTĂ DE LUCRĂRI

CANDIDAT: **ONIGA VALERIA-ERSILIA** - Dr./ din **2013**, conferențiar univ./ din **2018**.

#### **1° Lucrări științifice relevante**

1. **E., Oniga, N. Pfeifer, A., Loghin, (2018) - 3D calibration test-field for digital cameras mounted on Unmanned Aerial Systems (UAS), Remote Sens. 2018, 10(12), 2017; <https://doi.org/10.3390/rs10122017>.**
2. **E., Oniga, A-I., Breaban, N. Pfeifer, C., Chirilă, (2020) - Determining the Suitable Number of Ground Control Points for UAS Images Georeferencing by Varying Number and Spatial Distribution, Remote Sensing ( IF 4.118 ), DOI: 10.3390/rs12050876**
3. **Oniga, E., Chirilă, C., Stătescu, F. (2017), Accuracy Assessment of a complex building 3D Model reconstructed from images acquired with a low-cost UAV, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-2/W3, pp. 551-558, doi:10.5194/isprs-archives-XLII-2-W3-551-2017, 2017.**
4. **E. Oniga, ONIGA, M.-B. (2015), Testing the accuracy of different calibration methods, Journal of Geodesy, Cartography and Cadastre, Bucuresti, Romania, pp.8-17.**
5. **Păun, C. D., Oniga, V. E., Ciobanu, L. E. (2015), Testing a new method of digital images acquisition in the process of 3D reconstruction of an object, Journal of Geodesy, Cartography and Cadastre, Bucuresti, Romania, pp.28-36.**
6. **Oniga, E., Cardei, M. (2015), A new method for the accuracy evaluation of a manufactured piece, Published under licence by IOP Publishing Ltd., IOP Conference Series: Materials Science and Engineering, Volume 95 (1), 012088, (double blind peer-review article), <http://iopscience.iop.org/article/10.1088/1757-899X/95/1/012088/meta>**
7. **E. Oniga, A. Savu, A. Negrilă (2016)-The evaluation of CloudCompare software in the process of TLS point clouds registration, Journal of Geodesy and Cadastre RevCAD, no. 21, pp. 117-124, Alba Iulia, Romania, ISSN 1583-2279.**
8. **Oniga, E. Păun, C. D., Cardei, M. (2015)– Airborne laser scanning data for urban area analysis, Proceedings of the Biennial International Symposium. Forest and sustainable development, October 24-25, Brasov, Romania, pp. 322-327;**
9. **A. Loghin, E. Oniga, C-R. Giurma-Handley, (2018) – 3D point cloud classification of natural environments using Airborne Laser Scanning Data, American Journal of Engineering Research, Volume-7, Issue-2, pp-191-197, e-ISSN: 2320-0847.**
10. **A. Loghin, E. Oniga, Wieser, M. (2016), Analysing and modelling terrain surface changes using airborne laser scanning data, World Journal of Engineering Research and Technology WJERT, Vol. 2, Issue 3, pp. 87-95, ISSN 2454-695X.**

#### **2° Teza de doctorat**

Titlul tezei: **“Studiu comparativ asupra metodelor de modelare 3D a zonei urbane”**

Domeniul: Inginerie Civilă

Conducător științific: Prof. Univ. Dr. Ing. Dumitru Onose,

Universitatea: Universitatea Tehnică de Construcții București, România

Data susținerii publice a tezei de doctorat: 27 Septembrie 2013, Universitatea Tehnică de Construcții București, România

Titlul: Doctor în **Inginerie Civilă** din **2013**, prin Ordinul nr. 5581 MD al Ministerului Educației, Cercetării și Inovării, din 3.12.2013

#### **3° Articole publicate în reviste indexate ISI**

1. **E., Oniga, A-I., Breaban, N. Pfeifer, C., Chirilă, (2020)- Determining the Suitable Number of Ground Control Points for UAS Images Georeferencing by Varying Number and Spatial Distribution, Remote Sensing ( IF 4.118 ), DOI: 10.3390/rs12050876**

2. E., Oniga, N. Pfeifer, A., Loghin, (2018)-*3D calibration test-field for digital cameras mounted on Unmanned Aerial Systems (UAS)*, *Remote Sens.* 2018, 10(12), 2017; <https://doi.org/10.3390/rs10122017>.
3. Oniga, E., Chirilă, C. (2016), *Analogous vs. digital cameras for buildings 3D models creation*, *Environmental Engineering and Management Journal*, Volume 15/2016, no. 6, pag. 1293-1303, June 2016, Iasi, Romania, ISSN 1582-9596.
4. Oniga, E., Diac, M. (2013)- *Metric and non-metric cameras calibration for the improvement of real-time monitoring process results*, *Environmental Engineering and Management Journal*, Volume 12/2013, no. 4, pag. 719-726, April 2013, Iasi, Romania, ISSN 1582-9596.
5. Moca, V., Popia, A., Oniga, E., Sălceanu G. (2013)- *Analysis of deformations in cartographic projections used in cadastral works performed in the city of Iasi*, *Environmental Engineering and Management Journal*, Volume 12/2013, no. 4, pag. 699-708, April 2013, Iasi, Romania, ISSN 1582-9596.

#### **4° Articole publicate în volumele unor manifestări științifice indexate ISI Proceedings**

6. Oniga, E., Chirilă, C., Stătescu, F. (2017), *Accuracy Assessment of a complex building 3D Model reconstructed from images acquired with a low-cost UAV*, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLII-2/W3, pp. 551-558, doi:10.5194/isprs-archives-XLII-2-W3-551-2017, 2017.
7. Oniga, E., Macovei, M., Negri, A. (2017), *Accuracy assessment of a 3D model reconstructed from images acquired with a low-cost UAV*, *Modern Technologies for the 3rd Millennium* (23-24 March, 2017 – Oradea, Romania), 61-66.
8. Oniga, E., Cardei, M. (2015), *A new method for the accuracy evaluation of a manufactured piece*, Published under licence by IOP Publishing Ltd., IOP Conference Series: Materials Science and Engineering, Volume 95 (1), 012088, (double blind peer-review article), <http://iopscience.iop.org/article/10.1088/1757-899X/95/1/012088/meta>
9. DIAC, M., Chirilă, C., Oniga, E., Hogas H. (2016)- *Creating hydrological risk maps based on the rectified digital terrain model in the Nicolina Hydrographical basin*, 16<sup>th</sup> International Multidisciplinary Scientific Geo Conference, SGEM 2016, Albena, Bulgaria, Book 2 Water Resources, forest, marine and ocean ecosystems, Volume I, ISSN: 1314-2704, doi: 10.5593/sgem2016B31, pp. 219-226.
10. Oniga, E., Chirila, C., Macovei, M. (2016)- *Low-cost aerial unmanned aerial systems in cadastral applications*, 16<sup>th</sup> International Multidisciplinary Scientific Geo Conference, SGEM 2016, Albena, Bulgaria, Book 2 Informatics, Geoinformatics and Remote Sensing, Volume II, , ISSN: 1314-2704, DOI: 10.5593/sgem2016B22, pp. 947-954.
11. Chirila, C., Oniga, E., Dumitru, P. D. (2014)- *Quasigeoid fitting to the GNSS/levelling benchmarks in Iasi city area*, 14<sup>th</sup> International Multidisciplinary Scientific Geo Conference, SGEM 2014, 17 – 26 June, 2014, Albena, Bulgaria, Environmental Economy, ISSN: 1314-2704, Conference proceedings, Volume II, pp. 411-418.
12. Oniga, E., Chirila, C. (2013)- *Object based digital non-metric images accuracy*, 13<sup>th</sup> International Multidisciplinary Scientific Geo Conference, SGEM 2013, Albena, Bulgaria, Volume II, Environmental Economy, ISSN: 1314-2704, Cross Ref, SCOPUS, pp. 655-662.
13. Chirila, C. Oniga, E., Mihalache, R. M. (2013)- *Local quasigeoid modelling in Iasi city area*, 13<sup>th</sup> International Multidisciplinary Scientific Geo Conference, SGEM 2013, Albena, Bulgaria, Volume II, Environmental Economy, ISSN: 1314-2704, Cross Ref, SCOPUS, pp. 301-308.
14. Oniga, E. (2012)- *Comparative study on methods for 3D modeling of urban areas*, *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XXXIX-B6, 2012, pp. 155-160, XXII ISPRS Congress, 25 August – 01 September 2012, Melbourne, Australia, eISSN 2194-9034.
15. Oniga, E. (2012)- *A new approach for the semi-automatic texture generation of the buildings facades, from terrestrial laser scanner data*, *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XXXIX-B6, 2012, pp. 161-166, XXII ISPRS Congress, 25 August – 01 September 2012, Melbourne, Australia, eISSN 2194-9034.

#### **5° Articole publicate în reviste indexate în baze de date internaționale recunoscute (BDI)**

16. Moca V., Oniga V.-E., Onu C., Macovei M., Oprea R., Hutanu C. (2020)- *Analysis of the Deformations Recorded in the Extreme Geographical Administrative – Territorial Units of Romania Using the National 1970 Stereographic Projection System*, *American Journal of Engineering Research (AJER)*, Vol 9 (5), pp. 58-70.
17. E., Oniga, A. Breaban, F., Stătescu, (2018) -*Determining the optimum number of ground control points for obtaining high precision results based on UAS images*, *Proceedings*, 2(7) (doi: 10.3390/ecrs-2-05165).
18. A. Loghin, E. Oniga, C-R. Giurma-Handley, (2018) – *3D point cloud classification of natural environments using Airborne Laser Scanning Data*, *American Journal of Engineering Research*, Volume-7, Issue-2, pp-191-197, e-ISSN: 2320-0847.

19. Iurist, N.V, **Oniga, V.E**, Stătescu, F (2017) -*Tree-crown delineation based on very high resolution satellite images*, Proceedings of the Biennial International Symposium. Forest and sustainable development, Brasov, 7-8th October 2016, pp. 61-67
20. Păun, C. D., **Oniga, V.E**, Dragomir, P. I. (2017)– *Three-dimensional transformation of coordinate systems using nonlinear analysis-Procustes algorithm*, International Journal of Engineering Sciences & Research Technology, 6(2): February 2017, pp. 355-363, DOI: 10.5281/zenodo.291839, ISSN: 2277-9655, Impact Factor: 4.116.
21. N.V. Iurist (Dumitrașcu), **V.E. Oniga**, F.Statescu, C. Marcu (2017), *Floods Damage estimation using Sentinel-1 satellite images. Case study-Galati county, Romania*, Journal of Geodesy and Cadastre RevCAD, no. 22, pp. 115-122, Alba Iulia, Romania, ISSN 1583-2279.
22. Păun, C. D., **Oniga, V.E**, Dragomir, P. I., Diac, M. (2017) – *The remotely piloted aircraft system for 3D modelling of a cultural heritage building*, Journal of Geodesy and Cadastre RevCAD, no. 22, pp. 203-212, Alba Iulia, Romania, ISSN 1583-2279.
23. A. Loghin, I. Giurma, **E. Oniga** (2017) – *Digital Surface Models derivation from Airborne Laser Scanning Data*, Journal of Geodesy and Cadastre RevCAD, no. 22, pp. 141-150, Alba Iulia, Romania, ISSN 1583-2279.
24. **E. Oniga**, A. Savu, A. Negrilă (2016)-*The evaluation of CloudCompare software in the process of TLS point clouds registration*, Journal of Geodesy and Cadastre RevCAD, no. 21, pp. 117-124, Alba Iulia, Romania, ISSN 1583-2279.
25. A. Loghin, **E. Oniga**, Wieser, M. (2016), *Analysing and modelling terrain surface changes using airborne laser scanning data*, World Journal of Engineering Research and Technology WJERT, Vol. 2, Issue 3, pp. 87-95, ISSN 2454-695X.
26. **E. Oniga**, A. Loghin, Păun, C. D. (2016), *Crashed vehicle profile creation based on digital close-range photogrammetry*, World Journal of Engineering Research and Technology WJERT, Vol. 2, Issue 4, pp. 16-29, ISSN 2454-695X.
27. A. Loghin, **E. Oniga** (2015) -*Digital images and total station measurements fusion for 3D buildings models creation*, Journal of Geodesy and Cadastre RevCAD, no. 18, pp. 64-71, Alba Iulia, Romania, ISSN 1583-2279.
28. **E. Oniga**, ONIGA, M.-B. (2015), *Testing the accuracy of different calibration methods*, Journal of Geodesy, Cartography and Cadastre, Bucuresti, Romania, pp.8-17.
29. Păun, C. D., **Oniga, V. E.**, Ciobanu, L. E. (2015), *Testing a new method of digital images acquisition in the process of 3D reconstruction of an object*, Journal of Geodesy, Cartography and Cadastre, Bucuresti, Romania, pp.28-36.
30. A. Loghin, **E. Oniga** (2015) - *A comparative study on camera calibration algorithms*, Journal of Geodesy and Cadastre RevCAD, no. 19, pp. 135-144, Alba Iulia, Romania, ISSN 1583-2279.
31. A. Loghin, Ajin, R.S, **E. Oniga** (2015) –*The three-dimensional geodetic networks adjustment automation using Matlab*, Journal of Geodesy and Cadastre RevCAD, no. 19, pp. 15-22, Alba Iulia, Romania, ISSN 1583-2279.
32. N.V. Iurist (Dumitrașcu), **E. Oniga**, Statescu, F. (2015) – „*Comparative study on digital terrain models created based on ALS data and Pleiades images*”, Journal of Geodesy and Cadastre RevCAD, no. 19, pp. 127-134, Alba Iulia, Romania, ISSN 1583-2279.
33. Butnariu, D. G., **E. Oniga**, Statescu, F. (2015)- *A new expeditious method for buildings 3D models creation*, Journal of Geodesy and Cadastre RevCAD, no. 19, pp. 103-112, Alba Iulia, Romania, ISSN 1583-2279.
34. Butnariu, D. G., **E. Oniga**, Statescu, F. (2015)- *Tracking down the modifications of the right bank of the Prut river in the territorial administrative unit of Prisacani commune-Iasi county*, journal “Scientific papers”, Vol. 58 (1) 2015, series Agronomy, pp.147-150, Iasi, Romania, electronic ISSN 2069-6727.
35. **E. Oniga**, Cardei, M. (2015)- *Vertical accuracy evaluation of digital terrain models created based on line-following digitization of contour maps*, revista “Lucrari Stiintifice”, Vol. 58 (1) 2015, seria Agronomie, pp.171-176, Iasi, Romania, electronic ISSN 2069-6727.
36. **Oniga, E.** Păun, C. D., Cardei, M. (2015)– *Airborne laser scanning data for urban area analysis*, Proceedings of the Biennial International Symposium. Forest and sustainable development, October 24-25, Brasov, Romania, pp. 322-327, ISSN 1843-505X.
37. Loghin, A. **Oniga, E.** (2014) - *The influence of camera calibration parameters on 3D buildings models creation*, Journal of Geodesy and Cadastre RevCAD, no. 16, pp. 178-185, Alba Iulia, Romania, ISSN 1583-2279.
38. **Oniga, E.** (2014) - *A new method for buildings 3D models comparison*, Journal of Geodesy and Cadastre RevCAD, no. 17, pp. 60-67, Alba Iulia, Romania, ISSN 1583-2279.
39. Păun, C. D., **Oniga, E.** (2013) - *ALS data for vegetation analysis*, Journal of Geodesy and Cadastre RevCAD, no. 15, pp. 329-337, Alba Iulia, Romania, ISSN 1583-2279.
40. **Oniga, E.**, Chirilă C. (2013) - *Hausdorff distance for the differences calculation between 3D surfaces*, Journal of Geodesy and Cadastre RevCAD, no. 15, pp. 193-202, Alba Iulia, Romania, ISSN 1583-2279.
41. **Oniga, E.**, Șutu, M. (2012)– *On automatic texture growing from Voronoi computed building facade surfaces using color similarity detection*, Journal of Geodesy and Cadastre RevCAD, no. 12, pp. 133-139, Alba Iulia, Romania, ISSN 1583-2279.

42. **Oniga, E.**, Crenganiș (Bargan), L. (2012)– *3D representation of the topographical surfaces for the rehabilitation and development of the stock ponds*, Volume 55, no. 1, series Horticulture, 2012, pp. 531-536, Iasi, Romania, ISSN 1454-7376.
43. Moca, V., **Oniga, E.**, Cardei, M. (2012) – *Georeferentiation of the graphic fund for topographic plans drawn up on geodesic trapezia at general cadastral works*, Volume 55, no. 1, series Horticulture, 2012, pp. 525-530, Iasi, Romania, ISSN 1454-7376.
44. **Oniga, E.**, Chirilă C. (2012)– *Complex roof structures generalized representation established by approximating the mathematical shape using the least-squares method*, Scientific Journal „Mathematical Modelling in Civil Engineering”, Vol.8. no.4, pag. 178-187, December 2012, Bucharest, Romania, ISSN 2066-6926.
45. **Oniga, E.**, Chirilă C., Șutu, M. (2012)– *Terrestrial laser scanner surveying versus total station surveying for 3D building model generation*, Scientific Journal „Mathematical Modelling in Civil Engineering”, Vol.8. no.4, pag. 168-177, December 2012, Bucharest, Romania, ISSN 2066-6926.
46. **Oniga, E.** (2011)– *Comparative study on methods for 3D modeling of urban areas – case study the “Department of terrestrial measurements and cadastre” building, Iași city*, Scientific Journal „Mathematical Modelling in Civil Engineering”, Vol.7. no.4, pag. 188-197, December 2011, Bucharest, Romania, ISSN 2066-6926.
47. Moca, V., **Oniga, E.**, (2011) – *The adoption of some local stereographic projections in the general cadastre work from geographically extreme localities of Romania*, Scientific symposium with international participation "Horticulture science, quality, variety, harmony - 60 years of higher education in Horticulture science on Iasi", 26 to 28 May 2011, U.S.A.M.V. Iași, volume 54, Horticulture Series, “Ion Ionescu de la Brad” Editure, Iasi, (ISSN 1454-7376), pp. 543-550.

#### **6° Articole publicate în reviste neindexate în baze de date**

48. Moca, V., **Oniga, E.** (2010) – *Studies on deformations in 1970 stereographical projection and calculation of a local stereographic projection for the Radauti-Prut territory, Botosani*, Bul.I.P. Iasi, Tom LVI, Fasc 2, pp. 25-36, Hydrotechnics section.
49. Ilioi, D., **Oniga, E.**, Sandulache, G. (2010) - *The influence of tropospheric refraction in GPS determinations*, Bul. I.P. Iasi, Tom LVI (LX), Fasc 3, Hydrotechnics section.
50. Hogaș, H., Ilioi, D., **Oniga, E.**, (2010)- *Considerations on parcel maps elaboration for cadastral sectors in rural administrative territories*, Bul. I.P. Iasi, Tom LVI (LX), Fasc. 2, Hidrotechnics section.

#### **7° Articole publicate în volumele unor manifestări științifice neindexate în baze de date**

51. **Oniga, E.** (2011) - *The methodology for 3D model creation based on LiDAR and photogrammetric data-partial results*, Volume of International Symposium “GEOPREVI 2011”, 12 to 13 May 2011, Bucharest, Conspress Press, 2011 (ISBN 979-973-100-162-3), page 205-216.
52. Moca, V., **Oniga, E.** (2011) – *The deformations analysis of some cartographic projections, in the case of the localities from Romanian geographical extreme zones*, Volume of International Symposium “GEOPREVI 2011”, 12 to 13 May 2011, Bucharest, Conspress Press, 2011 (ISBN 979-973-100-162-3), pp. 105-116.
53. **Oniga, E.**, Bargan, L. (2010) – *Comparative analysis of the results of preliminary calculations for design process-case study – Ibaneasa III, Botosani county*, International Symposium CMEQF-01, 23-27, Iasi, ISSN 2069-2145.

#### **8° Cărți/ manuale/ îndrumare publicate în edituri recunoscute din țară sau din străinătate**

1. **Oniga E.**, Breaban A-I (2020) – *Aplicații utilizând nori de puncte laser scaner aeropurtat*, ISBN 978-606-25-0613-1, Matrixrom, București, 2020
2. **Oniga E.** (2020) – *Fotogrammetrie. Îndrumător de lucrări practice (Partea I)*, ISBN 978-606-68-5749-9, Performantica, Iași, 2020
3. **Oniga E.** (2019) – *Fotogrammetria avansată*, ISBN: 978-606-25-0476-2, Matrixrom, București, 2019.
4. **Oniga E.** (2017) – *Comparative studies on methods for 3D modelling of urban area*, ISBN 978-3-330-87728-3, Editions Universitaires Europeennes.
5. **Oniga E.**, Păun C. (2017) – *Aplicații Matlab pentru geomatică*, ISBN 978-606-25-0352-9, Matrixrom, București, 256 pg.
6. **Oniga E.** (2017) – *Fotogrammetria digitală. Îndrumător de lucrări practice*, ISBN 978-606-25-0346-8, Matrixrom, București, 297 pg.
7. Zăvoianu F., **Oniga E.** (2017) – *Fotogrammetria digitală*, ISBN 978-606-25-0373-4, Matrixrom, București, 323 pg., 2017.
8. **Oniga E.** (2014) – *Modelarea 3D a clădirilor prin fotogrammetria clasică și digitală*, ISBN 978-606-687-119-8, Tehnopress, Iasi, Romania, 282 pg.

Data: 29.03.2021

Conf. univ. dr. ing. Oniga Valeria-Ersilia

